access a second optimization problem and a second value corresponding to a second party to the negotiation, the second optimization problem comprising at least one second objective to which the second value relates;

determine a first optimal value according to the first optimization problem;

determine a second optimal value according to the second optimization problem; and

·generate a global solution to a global optimization problem in accordance with the first optimal value, the second optimal value, the first value, and the second value.

2. The system of Claim 1, wherein the first optimization problem is received from the first party and comprises at least a portion of a constrained optimization problem (COP) for the first party, the COP comprising at least the first objective.

3. The system of Claim 2, wherein the COP further comprises at least one constraint relating to one or more global variables.

4. The system of Claim 1, wherein at least the first value is selected from the group consisting of:

a threshold value received from the first party; and

the first optimal value determined according to the first optimization problem, the first optimization problem being received from the first party.

5. The system of Claim 1, wherein the global optimization problem comprises a linear programming (LP) problem.

6. The system of Claim 1, wherein the first optimal value for the first objective satisfies the first value, and the second optimal value for the second objective satisfies the second value.

7. The system of Claim 1, further operable to generate the global solution as a Pareto-optimal solution.

8. The system of Claim 1, further operable to generate the global solution as a fair solution according to one or more fairness criteria.

9.   The system of Claim 8, wherein the fairness criteria are selected from the group consisting of:

an equal distribution criterion;

a geometric distribution criterion;

a weighted distribution criterion;

a weighted geometric distribution criterion; and

a minimum deviation from optimal criterion.

10.   The system of Claim 1, further operable to access an additional first value for the first party, access an additional second value for the second party, and generate an additional global solution satisfying the additional first value and the additional second value.

11.   The system of Claim 1, further operable to:

communicate one or more global solutions to the first party and the second party;

receive filtering information from the first party and the second party;

use the filtering information to determine one or more filtered solutions from among the global solutions according to a filtering approach.

12.   The system of Claim 11, wherein the filtering approach is selected from the group consisting of:

a veto approach;

a Pareto-optimal ranking approach;

an optimal weighted preferences approach; and

a mixed approach combining two or more of the above.

13.   The system of Claim 1, further operable to:

communicate one or more solutions to the first party and the second party;

receive selection information from the first party and the second party; and

use the selection information to determine a selected solution from among the solutions according to a selection approach.

14.   The system of Claim 13, wherein the selection approach is selected from the group consisting of:

an auction approach; and

a random selection approach.

15.   The system of Claim 1, further operable to mediate at least a portion of a negotiation between the first party and a third party substantially simultaneously with the negotiation between the first party and the second party.

16.   The system of Claim 1, wherein the system comprises a computer system.

17.   A method for multi-party constrained optimization, comprising:

accessing a first optimization problem and a first value corresponding to a first party to a negotiation, the first optimization problem comprising at least one first objective to which the first value relates;

accessing a second optimization problem and a second value corresponding to a second party to the negotiation, the second optimization problem comprising at least one second objective to which the second value relates;

determining a first optimal value according to the first optimization problem;

determining a second optimal value according to the second optimization problem; and

generating a global solution to a global optimization problem according to the first optimal value, the second optimal value, the first value, and the second value, the global solution comprising an option for resolving the negotiation.

18.   The method of Claim 17, further comprising receiving the first optimization problem from the first party, the first optimization problem comprising at least a portion of a constrained optimization problem (COP) for the first party, the COP comprising at least the first objective.

19.   The method of Claim 18, wherein the COP further comprises at least one constraint relating to one or more global variables.

20.   The method of Claim 17, wherein at least the first value is selected from the group consisting of:

a threshold value received from the first party; and

the first optimal value determined according to the first optimization problem, the first optimization problem being received from the first party.

21.   The method of Claim 17, wherein the global optimization problem comprises a linear programming (LP) problem.

22.   The method of Claim 17, wherein the first optimal value for the first objective satisfies the first value, and the second optimal value for the second objective satisfies the second value.

23.   The method of Claim 17, wherein the global solution is generated as a Pareto-optimal solution.

24.   The method of Claim 17, wherein the global solution is generated as a fair solution according to one or more fairness criteria.

25.   The method of Claim 24, wherein the fairness criteria are selected from the group consisting of:

an equal distribution criterion;

a geometric distribution criterion;

a weighted distribution criterion;

a weighted geometric distribution criterion; and

a minimum deviation from optimal criterion.

26.   The method of Claim 17, further comprising:

accessing an additional first value for the first party;

accessing an additional second value for the second party; and

generating an additional global solution satisfying the additional first value and the additional second value.

27.   The method of Claim 17, further comprising:

communicating one or more global solutions to the first party and the second party;

receiving filtering information from the first party and the second party;

using the filtering information to determine one or more filtered solutions from among the global solutions according to a filtering approach.

28.   The method of Claim 27, wherein the filtering approach is selected from the group consisting of:

a veto approach;

a Pareto-optimal ranking approach;

an optimal weighted preferences approach; and

a mixed approach combining two or more of the above.

29.   The method of Claim 17, further comprising:

communicating one or more solutions to the first party and the second party;

receiving selection information from the first party and the second party;

use the selection information to determine a selected solution from among the solutions according to a selection approach.

30.   The method of Claim 29, wherein the selection approach is selected from the group consisting of:

an auction approach; and

a random selection approach.

31.   The method of Claim 17, further comprising mediating at least a portion of a negotiation between the first party and a third party substantially simultaneously with the negotiation between the first party and the second party.

32.   The method of Claim 17, wherein the method is implemented on one or more computer systems.

33. Software for multi-party constrained optimization, the software embodied in a computer-readable medium and operable to:

access a first optimization problem and a first value corresponding to a first party to a negotiation, the first optimization problem comprising at least one first objective to which the first value relates;

access a second optimization problem and a second value corresponding to a second party to the negotiation, the second optimization problem comprising at least one second objective to which the second value relates;

determine a first optimal value according to the first optimization problem;

determine a second optimal value according to the second optimization problem; and

generate a global solution to a global optimization problem in accordance with the first optimal value, the second optimal value, the first value, and the second value, the global solution comprising an option for resolving the negotiation.

34. The software of Claim 33, wherein the first optimization problem is received from the first party and comprises at least a portion of a constrained optimization problem (COP) for the first party, the COP comprising at least the first objective.

35. The software of Claim 34, wherein the COP further comprises at least one constraint relating to one or more global variables.

36. The software of Claim 33, wherein at least the first value is selected from the group consisting of:

a threshold value received from the first party; and

the first optimal value determined according to the first optimization problem, the first optimization problem being received from the first party.

37. The software of Claim 33, wherein the global optimization problem comprises a linear programming (LP) problem.

38. The software of Claim 33, wherein the first optimal value for the first objective satisfies the first value, and the second optimal value for the second objective satisfies the second value.

39.   The software of Claim 33, further operable to generate the global solution as a Pareto-optimal solution.

40.   The software of Claim 33, further operable to generate the global solution as a fair solution according to one or more fairness criteria.

41.   The software of Claim 40, wherein the fairness criteria are selected from the group consisting of:

an equal distribution criterion;

a geometric distribution criterion;

a weighted distribution criterion;

a weighted geometric distribution criterion; and

a minimum deviation from optimal criterion.

42.   The software of Claim 33, further operable to access an additional first value from the first party, access an additional second value from the second party, and generate an additional global solution satisfying the additional first value and the additional second value.

43.   The software of Claim 33, further operable to:

communicate one or more global solutions to the first party and the second party;

receive filtering information from the first party and the second party;

use the filtering information to determine one or more filtered solutions from among the global solutions according to a filtering approach.

44.   The software of Claim 43, wherein the filtering approach is selected from the group consisting of:

a veto approach;

a Pareto-optimal ranking approach;

an optimal weighted preferences approach; and

a mixed approach combining two or more of the above.

45.   The software of Claim 33, further operable to:

communicate one or more solutions to the first party and the second party;

receive selection information from the first party and the second party;

use the selection information to determine a selected solution from among the solutions according to a selection approach.

46.   The software of Claim 45, wherein the selection approach is selected from the group consisting of:

an auction approach; and

a random selection approach.

47.   The software of Claim 33, further operable to mediate at least a portion of a negotiation between the first party and a third party substantially simultaneously with the negotiation between the first party and the second party.